PDB8

FACTORS ASSOCIATED WITH PRESCRIPTION CLAIMS FOR BLOOD GLUCOSE TEST STRIPS AMONG FEE-FOR-SERVICE NEW MEXICO MEDICAID PATIENTS

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OBJECTIVE: Continuous blood glucose monitoring which requires the use of blood glucose test strips (BGTS) is essential for diabetes management. The objective of this study was to identify predictors of claims for BGTS submitted to the New Mexico Medicaid fee-for-service (NMMFFS) program. **METHODS:** Patients with prescription claims for insulin or oral diabetic medications between December 1, 1999 and November 30, 2000 were identified from the NMMFFS claims database. It was determined if these patients had claims for BGTS. Information on demographic predictors including age, gender, race/ethnicity, insulin use, and area of residence (rural, urban, intermediate) were extracted. A forward stepwise logistic regression analysis using the likelihood-ratio (LR) test, was performed to identify significant predictors of claims for BGTS. **RESULTS:** A total of 5636 diabetic patients, mean age 65.93 (SD = 17.25), were identified. Of these, 38.6% (n = 2178) had claims for BGTS. About 70% (n = 3974) were female, 45.1% (n = 2543) had claims for insulin, and 38.8% (n = 2185) resided in an urban area. Additionally, there were 42.7% (n = 2408) non-Hispanic whites, 30.8% (n = 1738) Hispanics, and 9.2% (n = 519) American Indians. The logistic regression results indicated that younger patients (OR = 0.97, 95% CI = 0.97–0.98) and patients with claims for insulin (OR = 1.88, 95%CI = 1.68–2.11) were more likely to have claims for BGTS. However, males (OR = 0.64, 95% CI = 0.56–0.73), patients who lived in intermediate areas (OR = 0.74, 95% CI = 0.65–0.83), non-Hispanic whites (OR = 0.78, 95% CI = 0.67–0.91), Hispanics (OR = 0.63, 95% CI = 0.53–0.75) and American Indians (OR = 0.40, 95% CI = 0.32–0.51) were all less likely to have claims for BGTS. **CONCLUSIONS:** Elderly patients who are female, non-insulin users, non-Hispanic white, Hispanic or American Indian and live in intermediate areas are less likely to have claims for strips. Therefore, educational interventions are needed to increase claims for BGTS in these patients, thus improving blood glucose monitoring.

PDB9

COST-EFFECTIVENESS ANALYSIS OF A MULTIDISCIPLINARY DIABETES CARE CLINIC

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OBJECTIVES: Diabetes affects more than 15.7 million people in the United States, resulting in an estimated annual cost of $98 billion (1997). With numerous complications, including heart disease, retinopathy, nephropathy, and neuropathy, contributing to the direct and indirect costs of diabetes, control is vital. A cost-effectiveness analysis was performed to compare health care resource utilization related to diabetes care incurred by health plan patients. **METHODS:** Subjects were enrolled in the Diabetes Care Clinic (DCC) for at least one year and were members of the health plan for one year prior to enrollment. Pharmacy and medical claims data from 1997–2000 were analyzed to identify diabetes-related charges incurred one year pre- and post-enrollment in the DCC. Charges were used to estimate costs and were adjusted to year 2000 dollars at a rate of inflation of 3%. Using the electronic medical record and clinic charts, hemoglobin A1c (HgbA1c), cholesterol profile, microalbuminuria, and blood pressure were evaluated. **RESULTS:** 23 diabetic patients met the inclusion criteria. These patients were mostly Type 2 diabetics (91%), female (65%), and Caucasian (70%). The mean age was 58 years. A preliminary analysis of the data indicated that the average HgbA1c decreased from 10.3 to 8.5, with 9 patients attaining glycemic control (defined as HgbA1c $<$ 8.0) after one year of enrollment. Additionally, average blood pressure decreased from 152/80 to 136/73. The average annual cost per patient for diabetes-related care was $3,090 pre-enrollment and $4,760 post-enrollment. A marginal cost-effectiveness ratio, in terms of cost to number of patients attaining glycemic control, was calculated. The added cost for glycemic control of one patient was $186. **CONCLUSIONS:** An analysis of short-term outcomes demonstrated the cost-effectiveness of a diabetes care clinic. By maintaining tight glycemic and blood pressure control, diabetic complications can be reduced with significant savings to the health plan.

PDB10

THE COST OF NEW ONSET DIABETES MELLITUS AMONG US RENAL TRANSPLANT RECIPIENTS

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OBJECTIVES: Immunosuppressive medications are associated with increased diabetes among kidney transplant recipients. We used data from the USRDS database to estimate the incidence and the average cost to Medicare of new onset diabetes Mellitus (NODM). **METHODS:** The USRDS database merges the UNOS renal transplant registry with Medicare billing and payment records. The USRDS registry recorded 9,541 single-organ, first, kidney transplants in 1996; 5,987 (63%) of these were not diabetic at transplantation. For the 4,515 (75% of 5,987) patients with Medicare claims, we merged all Medicare institutional and physician supplier claims records from 1996 through 1997 with the clinical information from UNOS. We classified patients as newly diabetic if any